



Wednesday, December 20, 2017

Attn: Mr. Keith Gammell
Barnhardt Mfg. Co.
247 Main Rd
P.O. Box 3
Colrain, MA 01340

Project ID: DECEMBER NPDES
Sample ID#s: BZ52383

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis/Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 20, 2017

FOR: Attn: Mr. Keith Gammell
Barnhardt Mfg. Co.
247 Main Rd
P.O. Box 3
Colrain, MA 01340

Sample Information

Matrix: WASTE WATER
Location Code: BARNHARD
Rush Request: Standard
P.O.#: G9085

Custody Information

Collected by: KG
Received by: LB
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
12/06/17	7:00
12/06/17	16:26

Laboratory Data

SDG ID: GBZ52383
Phoenix ID: BZ52383

Project ID: DECEMBER NPDES
Client ID: EFFLUENT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Copper	0.030	0.003	mg/L	1	12/08/17	EK	E200.7
B.O.D./5 day	< 4.0	4.0	mg/L	2	12/07/17 10:30	KDB/RM	SM5210B-01,-11
C.O.D.	178	20	mg/L	2	12/11/17	MSF	SM5220D-97,-11
Ammonia as Nitrogen	1.71	0.10	mg/L	2	12/18/17	WHM	E350.1
Nitrite-N	0.022	0.010	mg/L	1	12/07/17 16:55	GD	E353.2
Nitrate-N	11.1	0.50	mg/L	25	12/07/17 16:57	GD	E353.2
Phenolics	< 0.015	0.015	mg/L	1	12/07/17	BS	E420.4
Nitrogen Tot Kjeldahl	10.5	0.20	mg/L	2	12/18/17	WHM	E351.1
Phosphorus, as P	3.26	0.050	mg/L	5	12/19/17	EG	SM4500PE-99,-11
Total Suspended Solids	8.0	5.0	mg/L	1	12/08/17	KH	SM2540D-97,-11
Total Metals Digestion	Completed				12/07/17	AG	

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

December 20, 2017

Reviewed and Released by: Deb Lawrie, Project Manager



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QA/QC Report

December 20, 2017

QA/QC Data

SDG I.D.: GBZ52383

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 412243 (mg/L), QC Sample No: BZ53011 (BZ52383)													
<u>ICP Metals - Aqueous</u>													
Copper	BRL	0.0025	1.19	1.06	11.6	98.6			99.4			75 - 125	20



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QA/QC Report

December 20, 2017

QA/QC Data


SDG I.D.: GBZ52383

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 412056 (mg/L), QC Sample No: BZ52134 (BZ52383)													
Phenolics	BRL	0.015	<0.015	<0.015	NC	99.5			87.0			90 - 110	20 m
QA/QC Batch 413282 (mg/L), QC Sample No: BZ52224 (BZ52383)													
Ammonia as Nitrogen	BRL	0.05	0.31	0.30	3.30	97.3			99.3			90 - 110	20
Nitrogen Tot Kjeldahl	BRL	0.10	1.76	2.02	13.8	106			104			85 - 115	20
QA/QC Batch 413570 (mg/L), QC Sample No: BZ52243 (BZ52383)													
Phosphorus, as P	BRL	0.01	0.023	0.019	NC	106			97.2			85 - 115	20
Comment:													
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.													
QA/QC Batch 412250 (mg/L), QC Sample No: BZ52379 (BZ52383)													
Nitrate-N	BRL	0.02	<0.02	<0.02	NC	92.1			97.8			90 - 110	20
Nitrite-N	BRL	0.01	0.011	0.02	NC	104			94.2			90 - 110	20
QA/QC Batch 412123 (mg/L), QC Sample No: BZ52434 (BZ52383)													
B.O.D./5 day	BRL	2.0	<4.0	<4.0	NC	94.5			110			70 - 130	20
B.O.D./5 day GGA BOD						87.1						84 - 115	20
QA/QC Batch 412502 (mg/L), QC Sample No: BZ52434 (BZ52383)													
C.O.D.	BRL	10	<10	<10	NC	99.5			97.7			85 - 115	20
Comment:													
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.													
QA/QC Batch 412331 (mg/L), QC Sample No: BZ52434 (BZ52383)													
Total Suspended Solids	BRL	5.0	<5.0	<5.0	NC	99.0						85 - 115	

m = This parameter is outside laboratory MS/MSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference


Phyllis Shiller, Laboratory Director
December 20, 2017

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Criteria: None

State: MA

Sample Criteria Exceedances Report

GBZ52383 - BARNHARD

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



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Analysis Comments

December 20, 2017

SDG I.D.: GBZ52383

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

